AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111
Serial Number: 09/846,857
Filing Date: May 1, 2001
Title: HIGH SPEED PROGRAMMABLE COUNTER

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REMARKS

No claims are amended, canceled, or added; as a result, claims 10-49 remain pending in this application.

§102 Rejection of the Claim

Claim 18 was rejected under 35 U.S.C. § 102(e) for anticipation by Christensen (U.S. 6,072,796). Applicant respectfully traverses this rejection. The Office Action at page 2 states that Christensen discloses the following:

> "(c)   a plurality of output ports coupled to the memory and to a second bus wherein each input port and each output port are coupled to a programmable counter having programmable start and stop values, the programmable counter having a start count and a maximum count and is programmed to increment the start value until the start value reaches the maximum count at which time the counter rolls over to the start count and continues to increment the start value until it reaches the stop value."

However, Christensen does not disclose what is recited in claim 18. First, Christensen does not disclose "a programmable counter having programmable start and stop values." The Office Action cites Christenson col. 6, lines 60-67 and col. 7, lines 1-5 in support, whereat Christenson states, in part, "each of the interface network modules has an internal register, designated as max count, which may be programmed for any different number (designated as the max count value) of time slots per sample period." This is substantially different than what is recited in claim 18. Claim 18 has all three elements, namely, a start count value, stop count value, and maximum count value. All three elements are programmable. Christensen only teaches one programmable limitation to the counter range, the "max count value." "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Applicant fails to understand how arguably teaching only one element of a claim, the max count value, is sufficient to suggest qualification as prior art under an anticipation rejection. As a result, applicant respectfully requests withdrawal of the anticipation rejection.

Furthermore, even if the Office Action could sustain an anticipation rejection without Christensen teaching all three timing limitation components, Christensen fails to teach the following recited in claim 18: "the programmable counter ... is programmed to increment the start value until the start value reaches the maximum count at which time the counter rolls over to the start count and continues to increment the start value until it reaches the stop value." The Office Action states Christensen col. 6, lines 60-67 and col. 7, lines 1-5 in support. Christensen states "Internal counters in the network interface module start counting synchronously with the Ph0 clock upon receipt of the TDM start signal. These counters stop counting once they reach the max count value, and remain at the max count value for the duration of the dead zone. Upon arrival of the next TDM start pulse, the counters again begin counting from zero." This is substantially different than what is recited in claim 18.

Christensen teaches reaching the maximum count value, and remaining at the max count value until a new TDM start pulse occurs. This is certainly different than what is recited in claim 18. In the subject matter of claim 18, the counter does not stop when it reaches the max count value. The counter "rolls over to the start count and continues to increment..." Applicant cannot locate in Christensen any mention of a rollover when the max count value is reached. In fact, Christensen teaches effectively the opposite, stopping at the max count value.

In addition, Christensen does not teach a stop value, and only stops counting when the max count value is reached. This is also substantially different than the subject matter recited in claim 18. The counter "continues to increment the start value until it reaches the stop value." Claim 18 recites stopping the counter only when the value reaches the stop value. Christensen doesn't even teach a stop value. As a result the counter taught in Christensen certainly doesn't stop at the stop value.

Another major difference exists between Christensen and the subject matter recited in claim 18. Christensen supports a plurality of counters. "The TDM Start signal is used to reset slot counters inside the network interface modules at the start of a bus cycle". (Christensen Column 5 lines 39-41). Certainly, this is substantially different than that recited in claim 18. A main purpose of the subject matter disclosed in claim 18 is to allow differing lengths of data to be transferred using the same counter. In fact, Christensen teaches use of multiple counters for multiple data lengths. Only the Maximum value of those data lengths is adjustable, and that

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number is limited dependant on the number of bits available to the counter. In the subject matter recited in claim 18, however, the number of bits is irrelevant, as the counter continues to count beyond the number of bits available to the counter.

Based at least one the above, Applicant requests that the rejection of claim 18 be withdrawn.

<div align="center">Allowable Subject Matter</div>

Claims 10-17 and 19-49 were allowed.

<div align="center">CONCLUSION</div>

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 349-9587 to facilitate prosecution of this application. If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.
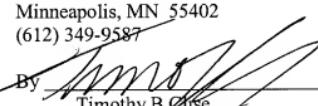
Respectfully submitted,

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Date 30 April '06

By Timothy B Grise
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